



LIFE 15 IPE IT 013

Supporting enterprises in becoming more energy-efficient the Po Valley regions expectations in the project LIFE IP PREPAIR

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ENERGY EFFICIENCY IN ENTERPRISES IN THE EUSALP MACRO-REGION

Bolzano, 21-22 March 2019

YOU'VE GOT AIR!

*Together for the
Policies of air quality*

Background



The Po Basin represents a significant nonattainment area for PM, NO₂ and O₃ limit values

- densely-populated / heavily-industrialised / intensively-farmed area
- morphology
- meteorological conditions

Why an Integrated Project?

- **Regional AQPs:** Regions have implemented air quality plans over the past decade, partially succeeding in reducing PM, NO₂ and O₃ levels below EU standards. In order to further reduce background air pollution coordinated actions should be undertaken at basin scale.
- **Po Basin Agreements on AQ** (since 2005):
 - in 2013 establishment of common measures for most relevant emission sources (**transport, biomass burning for domestic heating, energy consumption, agriculture**), involvement of the Italian Ministry for Environment and other competent Ministries
 - in 2017 establishment of coordinated measures for mobility, biomass burning and agriculture

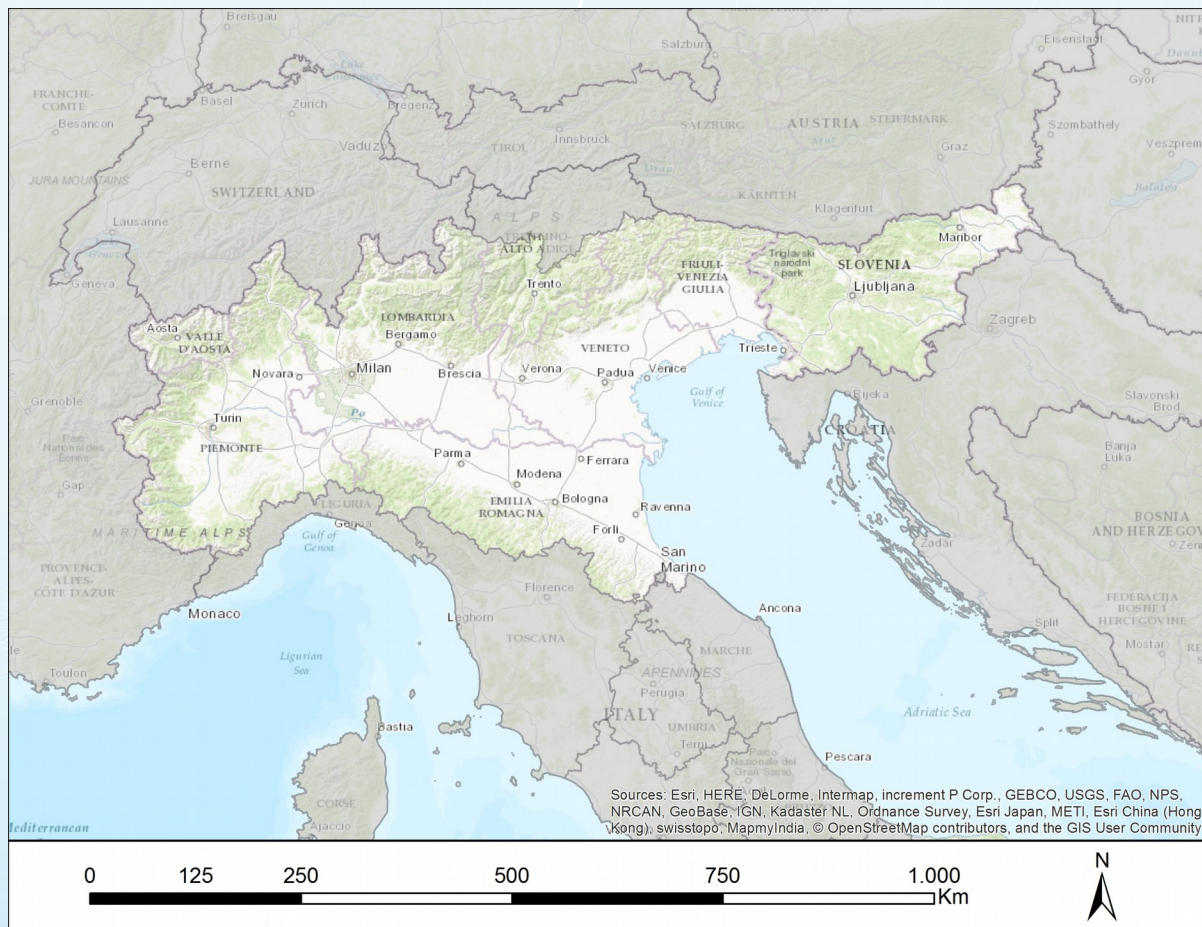
PREPAIR will

- help the full implementation of AQPs and Po Basin Agreement measures at larger territorial scale → **concrete environmental actions by Regions and Cities**
- establish a permanent data sharing infrastructure for monitoring / assessing air quality and measures implementation in the project area → **technical actions by Environmental Agencies**
- allow the assessment / reduction of pollutants transport across the Northern Adriatic Sea

PREPAIR aims to

- strengthen synergies among Regions and Environmental Agencies on AQ issues and policies
- establish a **Permanent government platform** formed by:
 - representatives of the Regions involved in AQ issues
 - representatives of the Authorities in charge of complementary funds
 - stakeholders

PREPAIR in numbers



6 Regions

Region Emilia-Romagna

(coordinating beneficiary), Region Lombardy, Region Piedmont, Region Veneto, Autonomous Province of Trento, Region Friuli Venezia Giulia

7 Environmental Agencies

ARPAE Emilia-Romagna, ARPA Lombardy, ARPA Piedmont, ARPA Veneto, ARPA Valle d'Aosta, ARPA Friuli Venezia Giulia, Slovenian Environmental Agency

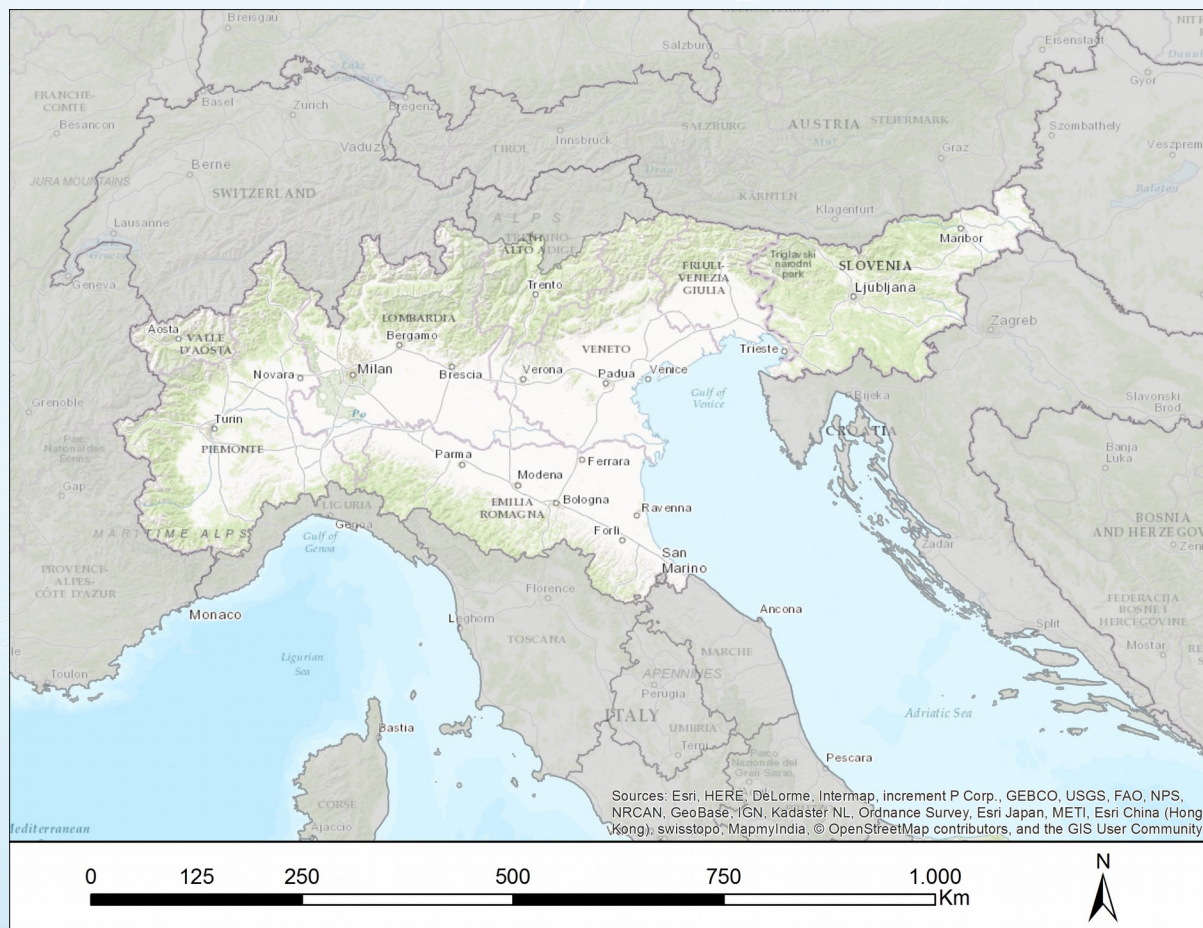
3 Municipalities

Bologna, Turin, Milan

2 Private non-commercial agencies

ERVET, FLA

PREPAIR in numbers



7 Air Quality Plans

36 actions

Duration

- Grant Agreement signed in December 2016
- 7 years (1/2/2017-31/01/2024)
- 3 phases

Budget

- Total: 16.805.939 €
- EU co-financing: 9.974.624 €



Complementary funds

- 850 M€
- EAFRD, ERDF, regional and national funds

General objectives

PREPAIR aims to implement actions in the territory of the Po Basin and Slovenia in order to improve AQ and comply with:

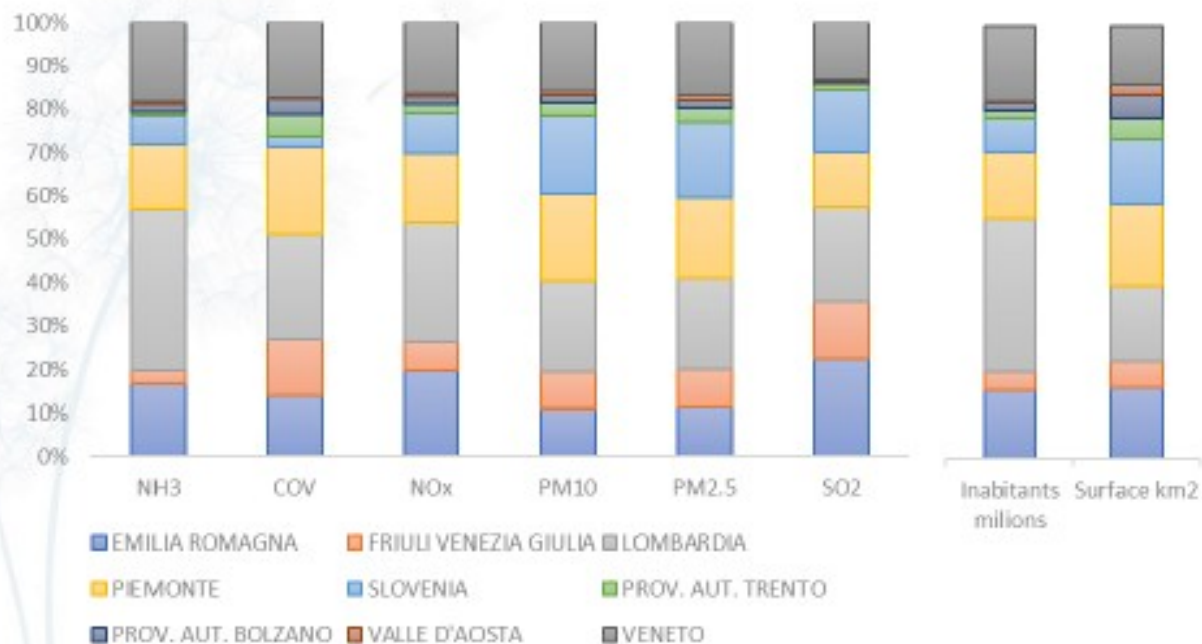
- **2008/50/EC Air Quality Directive**
- **European strategy “Clean Air for Europe”**
- **National Emission Ceiling – NEC Reduction Commitments.**

General objectives:

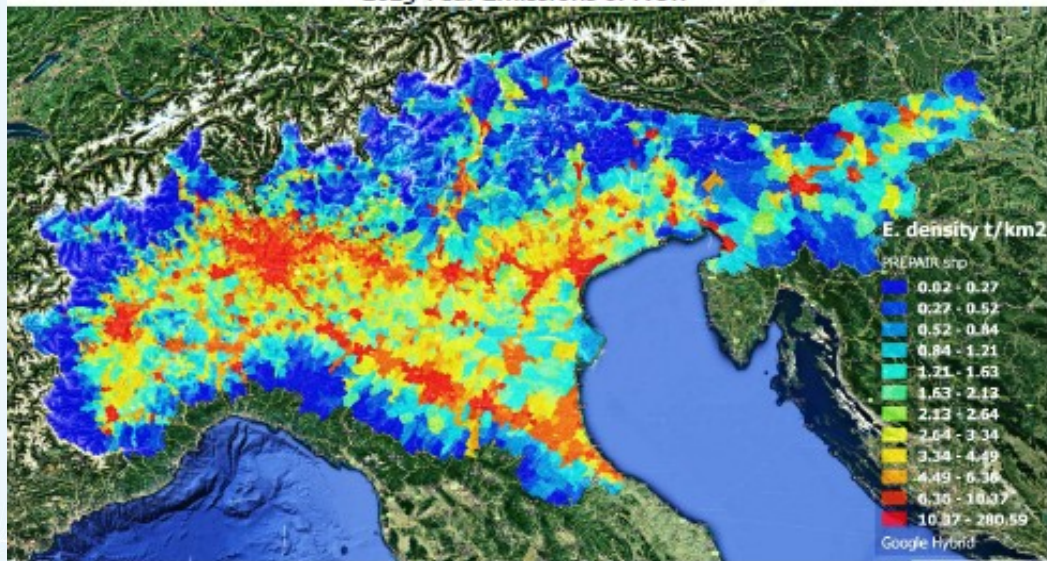
- implementation of measures included in the AQPs and in the Po Basin Agreement, acting on multiple sectors/policies (agriculture, biomass, energy, transports) and on multiple pollutants (PM, NO₂, O₃, NH₃, VOC) in a synergic way
- assessment of the effectiveness of PREPAIR actions on AQ through common tools
- increase of know-how and reinforcement of capacity building for public authorities and private operators
- establishment of a permanent network of national, regional and local governments, environmental agencies and other stakeholders in the project area
- increase of the awareness about risks posed by air pollution for human health and for the environment

Emission share- 2013

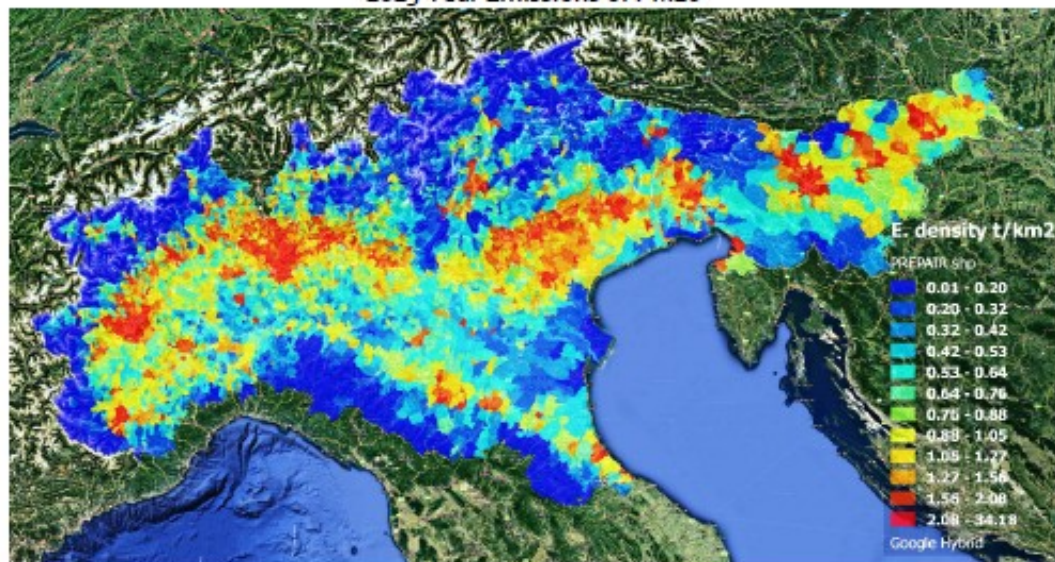
Emission share on base year 2013 for Po-basin	NH3	NM VOC	NM VOC without mac 10 and 11	NOx	PM10
1-Combustion in energy and transformation industries	0%	0%	0%	6%	1%
2-Non-industrial combustion plants	0%	5%	11%	9%	56%
3-Combustion in manufacturing industry	0%	1%	2%	15%	4%
4-Production processes	0%	4%	9%	3%	3%
5-Extraction and distribution of fossil fuels and geothermal energy	0%	2%	4%	0%	0%
6-Solvent and other product use	0%	28%	58%	0%	5%
7-Road transport	1%	6%	14%	50%	20%
8-Other mobile sources and machinery	0%	1%	2%	13%	4%
9-Waste treatment and disposal	1%	0%	0%	1%	0%
10-Agriculture	97%	22%	0%	1%	4%
11-Other sources and sinks	0%	31%	0%	0%	3%
Total Emissions	100%	100%	100%	100%	100%



2013 Year Emissions of NO_x



2013 Year Emissions of PM₁₀



Emission share – 2025 – without AQPs

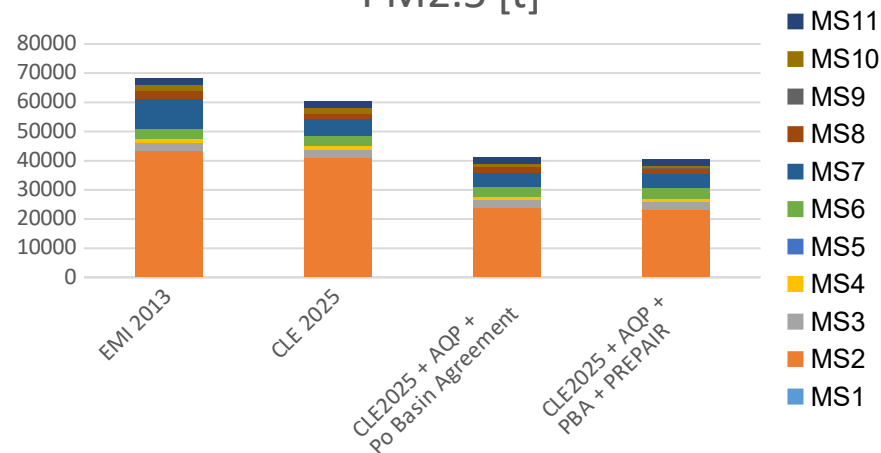
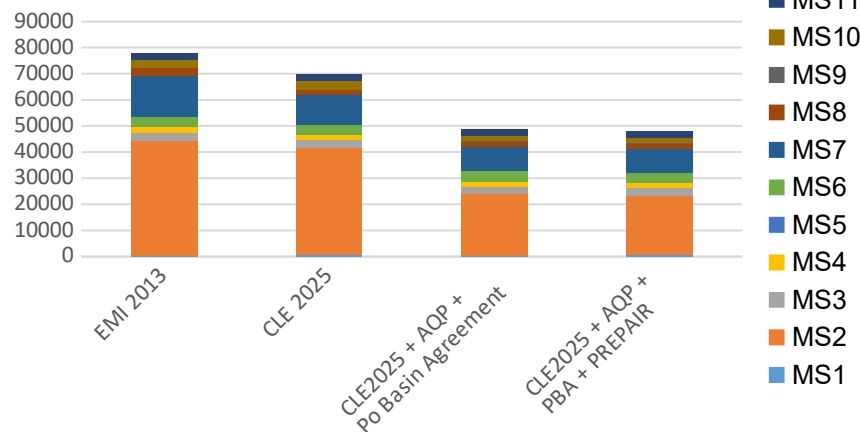
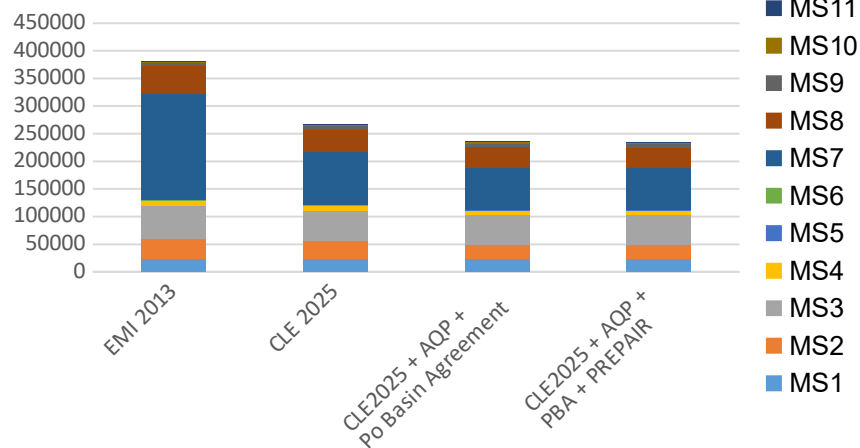
5.1 Main emission indicator on the Po-basin and Slovenia for 2025 (no-plans)

According to the emission scenario, the emission share on year 2025 are reported for the Po-basin:

Emission share on year 2025 for Po-basin	NH3	NOx	PM10
1-Combustion in energy and transformation industries	0%	9%	1%
2-Non-industrial combustion plants	0%	12%	59%
3-Combustion in manufacturing industry	0%	20%	4%
4-Production processes	0%	3%	3%
5-Extraction and distribution of fossil fuels and geothermal energy	0%	0%	0%
6-Solvent and other product use	0%	0%	5%
7-Road transport	1%	37%	16%
8-Other mobile sources and machinery	0%	15%	3%
9-Waste treatment and disposal	0%	2%	0%
10-Agriculture	98%	1%	5%
11-Other sources and sinks	0%	0%	4%
Total Emissions	100%	100%	100%

Combining emission scenario dataset and inhabitants of the Provinces and Regions, the estimates on per capita emission are reported for 2025:

Per capita emissions g/inhab/y	NH3	NOx	PM10
Piedmont	9 001	10 471	4 079
Aosta Valley	13 067	16 279	7 366
Lombardy	9 954	7 671	1 765
Autonomous Province of Trento	4 177	14 428	4 891
Autonomous Province of Bolzano - South Tyrol	9 581	11 690	3 029
Veneto	10 577	11 985	2 731
Friuli Venezia Giulia	6 707	19 008	6 301
Emilia Romagna	10 170	11 380	2 009



ENERGY EFFICIENCY actions

To reduce energy consumption

Industries

Provides companies, included SMEs (Small Medium Enterprises), with the tools needed to achieve targets on energy efficiency and for an efficient energy use

Private buildings

Specific training on near-zero energy buildings and renewable energies in order to develop professional expertises for an holistic approach to building works, specifically oriented to multi-family houses/condos, involving all actors (from building administrators to architects, engineers, etc.)

Public buildings

Technical support and information to local authorities on access to finance and investment opportunities for energy saving initiatives

Green Public Procurement

Trainings and workshops for diffusion the GPP approach between local bodies & enterprises, also using e-learning tools.

Electricity consumption – Industrial sector of Trentino

TAV. XII.7 – Consumi di energia elettrica per settore di utilizzazione (1996–2015)

Anni	Agricoltura	Industria	Terziario	Domestico	Totale
1996	57,0	1.346,0	770,0	485,0	2.658,0
2000	52,1	1.365,5	674,4	530,0	2.622,1
2005	50,5	1.608,5	958,0	603,2	3.220,2
2010	68,4	1.391,3	1.090,1	659,9	3.209,7
2011	73,3	1.339,3	1.104,5	621,1	3.138,4
2012	67,1	1.212,2	1.091,0	597,6	2.967,9
2013	71,3	1.359,9	1.108,5	615,0	3.154,7
2014	73,9	1.456,0	1.083,1	618,6	3.231,5
2015	86,6	1.528,0	1.127,3	588,2	3.330,1

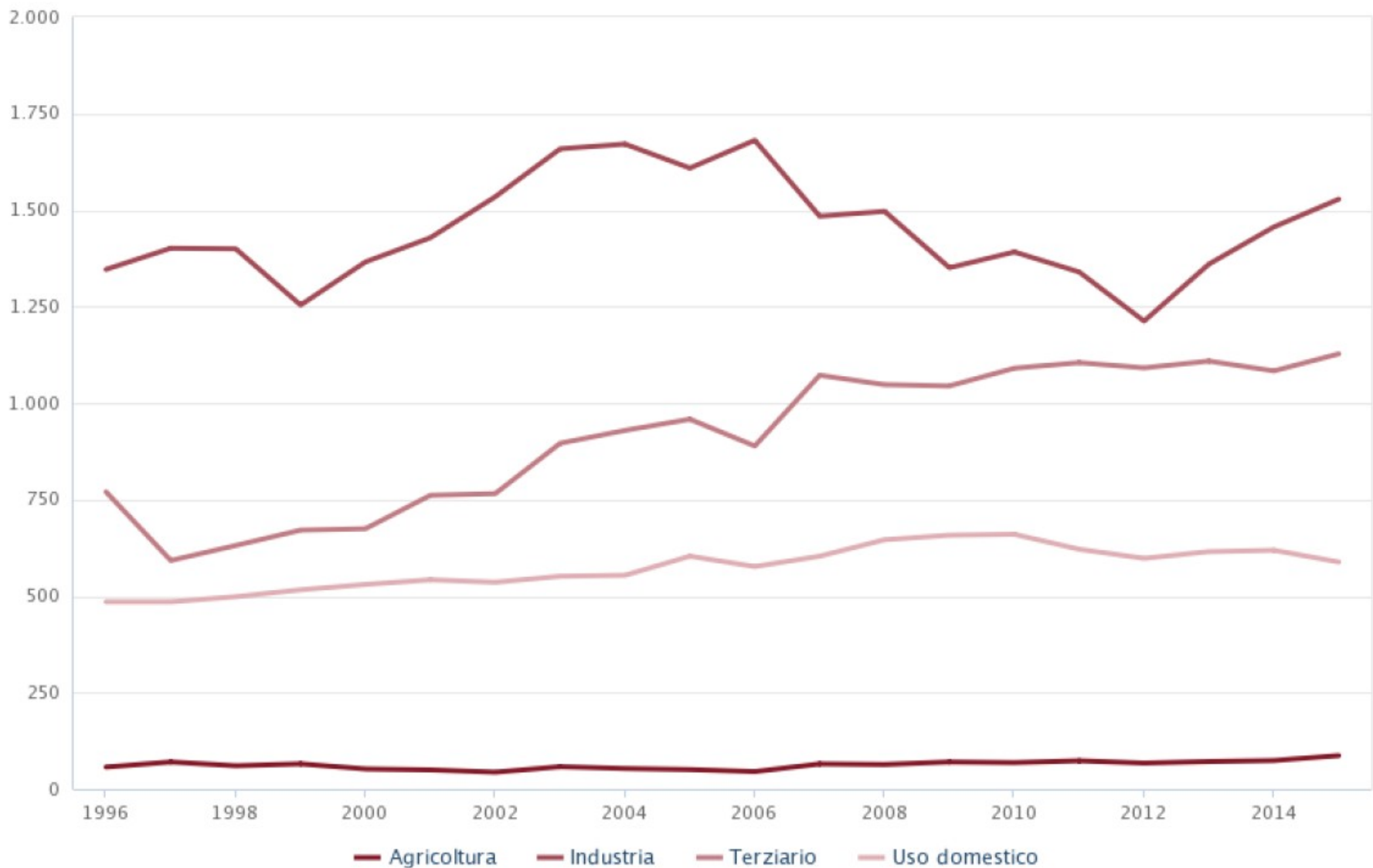
Fonte: Terna S.p.A.

Industrial Chamber: 150.000 units.

250 companies included into a energy group for buying natural gas and electricity and 83 in Assoenergia

Albo delle Imprese Artigiane alla Camera di Commercio in Provincia di Trento: 12.000units

GRAFICO XII.2 - Consumi di energia elettrica acquistata ed autoprodotta per macro settore di attività economica degli utilizzatori (1996-2015)



Fonte: Terna S.p.A.
Elaborazioni ISPAT, Istituto di statistica della provincia di Trento

ENERGY EFFICIENCY actions – Industries (2019-2020)

Provides companies, included SMEs (Small Medium Enterprises), with the tools needed to achieve targets on energy efficiency and for an efficient energy use

The action will be developed in the following steps:

- **Selection of case-studies** in the Po Basin and their detailed analysis;
- **Quantitative assessment of the expected benefits** in terms of reduction of air pollutant emissions (PM and its precursors, including Nox);
- **Development of thematic guidelines** (like "mini Brefs"), concerning methods of assessment of the level of efficiency and identifying the actions required to increase it using the available free tools on self evaluating and comparative analysis, and the criteria for applying certain techniques;

ENERGY EFFICIENCY actions – Industries (2019-2020)

- **Events related to specific aspects** (i.e Introduction of energy management inside the manufacturing company, support to adoption of ISO 50.001 certification schemes by companies; innovative solution for reduction of energy consumption, energy performance contracts and third party financing scheme in the manufacturing sectors);
- **Workshops with the business system** to support the concrete application of measures for the implementation of the energy efficiency BRef and other measures identified, and the development of technical and managerial tools with the possibility of procedural simplification. The participants will receive a certificate of attendance to the workshop.



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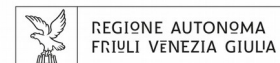


Thanks for your attention!

www.lifeprepare.eu – info@lifeprepare.eu



REGIONE DEL VENETO



PROVINCIA AUTONOMA DI TRENTO



Agenzia Regionale per la Prevenzione
e Protezione Ambientale del Veneto



Agenzia Regionale per la Protezione dell'Ambiente



agenzia regionale per la
protezione dell'ambiente
del Friuli Venezia Giulia



ARSO ENVIRONMENT
Slovenian Environment Agency



Comune di Bologna



Comune di
Milano



CITTA' DI TORINO



Emilia-Romagna Valorizzazione Economica Territorio



Fondazione Lombardia
per l'Ambiente